

AMENDMENTS TO THE CLAIMS

The following listing of claims will replace all prior versions and listings of claims in the application.

LISTING OF CLAIMS

1. (Currently Amended) A reconfigurable pallet that supports a structure, comprising:

a pallet base; and

a plurality of modular stanchions that are adhesively secured to said pallet base and that are ~~continuously~~ selectively positionable along x and y axes relative to a top surface of said pallet base, said modular stanchions each including a stanchion base and a support element that has a height along a z axis that is transverse to said x and y axes, said support element supporting said structure,

wherein each of said modular stanchions is adhesively bonded to said pallet base using a bonding pack, said bonding pack including

a means for removing said modular stanchion from said pallet base coupled to the bottom of said stanchion base via an adhesive layer; and
a quick-bonding adhesive layer providing an interfacial joint between said modular stanchion and said pallet base.

2. (Original) The reconfigurable pallet of claim 1 wherein said x and y axes are parallel to a top surface of said pallet base and said z axis is perpendicular to said x and y axes.

3. (Original) The reconfigurable pallet of claim 1 wherein said support element is movable along said z axis to adjust said height.

4. (Original) The reconfigurable pallet of claim 3 wherein each of said modular stanchions further comprises a support cylinder that is selectively actuated to move said support element to a position along said z axis.

5. (Original) The reconfigurable pallet of claim 4 further comprising a hydraulic pump in fluid communication with said support cylinder and operable to adjust a hydraulic pressure within said support cylinder to move said support element along said z axis.

6-9. (Cancelled)

10. (Currently Amended) A pallet that is configurable to support a first structure and reconfigurable to support a second structure, comprising:

a pallet base; and

a plurality of modular stanchions that are adhesively secured to said pallet base and that are ~~continuously~~ selectively positionable along x and y axes relative to a top surface of said pallet base, said modular stanchions each including a stanchion base and a support element that is has a height defined along a z axis transverse to said x and y axes, said support element having a first position to support said first structure and having a second position to support said second structure.

wherein each of said modular stanchions is adhesively bonded to said pallet base using a bonding pack, said bonding pack including
a shim bonded to the bottom of said modular stanchion via a quick-debonding adhesive layer; and
a quick-bonding adhesive layer providing an interfacial joint between said modular stanchion and said pallet base.

11. (Original) The pallet of claim 10 wherein said support element is movable along said z axis to adjust said height.

12. (Original) The pallet of claim 10 wherein each of said modular stanchions further comprises a support cylinder that is selectively actuated to move said support element to a position along said z axis.

13. (Original) The pallet of claim 12 further comprising a hydraulic pump in fluid communication with said support cylinder and operable to adjust a hydraulic pressure within said support cylinder to move said support element along said z axis.

14-17. (Cancelled)

18. (Currently Amended) A method of assembling a reconfigurable pallet that supports multiple structures, comprising:

applying an adhesive a bonding pack to a modular stanchion having a stanchion base, said bonding pack including

a shim bonded to the bottom of said stanchion base via a quick-debonding adhesive layer; and

a quick-bonding adhesive layer;

securing said modular stanchion to a pallet base using said adhesive bonding pack, wherein said quick-bonding adhesive layer provides an interfacial joint between said modular stanchion and said pallet base;

de-bonding said modular stanchion from said pallet base after using said reconfigurable pallet to support a first structure; and

reconfiguring said reconfigurable pallet to support a second structure.

19. (Original) The method of claim 18 further comprising aligning said modular stanchion on x and y coordinates along said pallet base using a template.

20. (Original) The method of claim 18 further comprising removing said template after said modular stanchion is secured to said base.

21-23. (Cancelled)

24. (Original) The method of claim 18 wherein said step of de-bonding comprises applying an electric current across said modular stanchion and said pallet base.

25. (Currently Amended) An assembly line for assembling a product, comprising:

a plurality of operation stages; and

a pallet that supports a base structure of said product and carries said base structure between said operating stages, comprising:

a pallet base;

a stanchion base that is adhesively secured to said pallet base and that is continuously positionable along x and y axes relative to a top surface of said pallet base, wherein said stanchion base is adhesively bonded to said pallet base using a bonding pack, said bonding pack including

a shim bonded to the bottom of said stanchion base via a quick-debonding adhesive layer; and

a quick-bonding adhesive layer; and

a support element that is supported on said stanchion base and that has a height transverse to said x and y axes along a z axis, said support element having a first position to support said base structure.

26. (Original) The assembly line of claim 25 wherein said support element is movable along said z axis to adjust said height.

27. (Original) The assembly line of claim 25 wherein said pallet further comprises a support cylinder that is supported by said stanchion base and that is selectively actuated to move said support element to a position along said z axis.

28. (Original) The assembly line of claim 27 further comprising a hydraulic pump in fluid communication with said support cylinder and operable to adjust a hydraulic pressure within said support cylinder to move said support element along said z axis.

29-32. (Cancelled)

33. (Original) The assembly line of claim 25 wherein said ~~modular~~ stanchion base is located along said x and y axis using a template.

34. (New) The assembly line of claim 25 wherein said stanchion base and said shim are electrically conductive.

35. (New) The reconfigurable pallet of claim 1 wherein said stanchion base and said shim are electrically conductive.

36. (New) The pallet of claim 10 wherein said stanchion base and said shim are electrically conductive.